CSID 62

SITE HAZARD ASSESSMENT
WORKSHEET 1
SUMMARY SCORE SHEET

Site Name/Location (Street, City, County, Section/Township/Range, TCP ID Number):

Industrial Container Services WA LLC
7152 1st Ave S
Seattle, WA 98108
King County
T-24N, R-4E, Sec-29
Facility Site ID: 2154
Longitude: 122° 19′ 52.46″
Site assessed/re-ranked for August 24, 2005 update

Site Description (Include management areas, substances of concern, and quantities):

The Industrial Container Services WA LLC property is a large industrial site covering approximately six and one half acres. The area consists mostly of large industrial complexes, commercial businesses and a few private residences. The property is bordered to the west by W. Marginal Way S., to north and south by other industrial properties and to the east by the Duwamish Waterway. There is no documented use of groundwater for private or municipal wells for either drinking water of irrigation purposes within a two-mile radius.

The Industrial Container Services business includes the reconditioning and manufacture of 55-gallon drums. A manufacturing or drum recycling business has been in operation at this location since 1943. During the history of the plant several large spills of hazardous materials have occurred on the property.

From 1946 until 1995 the property operated under the name of Northwest Cooperage Company. During the fall of 1987, Hart Crowser, Inc. conducted a groundwater and soil quality assessment of the site. This assessment identified a wide variety of contaminants on the property. This information was forwarded to the Washington Department of Ecology (Ecology) for review. Ecology then decided the site needed further assessment. On March 1, 1988, the Northwest Cooperage Company property was added to Ecology's Integrated Site Information Systems (ISIS) list of confirmed and suspected contaminated sites to await further assessment under the Model Toxics Control Act (MTCA).

During the summer of 1991, Ecology contracted with Parametrix, Inc. to conduct a Site Hazard Assessment (SHA) of the Northwest Cooperage site. After gathering information on the property Parametrix gave the site a ranking of 4 based on the surface water and ground water routes. The air route was not scored at the time due to the fact that air emissions from the site were monitored under the Puget Sound Air Pollution Control Authority and it was thus (erroneously) believed that scoring the air route was not applicable under the Washington Ranking Method.

At the present time Ecology is classifying large areas of the Duwamish Waterway, including the area that contains the Industrial Container Services property. For a more detailed assessment, Ecology requested that Carsten Thomsen of Public Health-Seattle & King County (PHSKC) re-rank the site. This re-ranking would include the original data gathered from the site but also include the air route and the amended MTCA Method A cleanup levels which are now in effect.

Special Considerations (Include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site): These scores are based on a re-ranking of the Northwest Cooperage property using all of the environmental and human health pathways. However, no sediment data or impacts are factored into the SHA model. Per recent data, there are significant sediment impacts due to DDT in site sediments.

ROUTE SCORES:

Surface Water/Human Health:	8.0	Surface Water/Environ.:	16.9
Air/Human Health:	24.6	Air/Environmental:	17.8
Ground Water/Human Health:	21.2		

OVERALL RANK: 4

WORKSHEET 2
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE

List those substances to be considered for scoring: Source:2

Polychlorinated biphenyls (PCBs)
Lead
Vinyl chloride
Benzene

Explain basis for choice of substance(s) to be used in scoring.

Concentrations of all of the above substances are either above their respective MTCA Method A cleanup levels, or showed significant detections, in surface soils.

List those management units to be considered for scoring: Source:2,3

Surface soil.

Explain basis for choice of unit to be used in scoring. Source:3

Surface soils documented concentrations of all of the above listed substances either above their respective MTCA Method A cleanup levels, or at significant concentrations.

2. AIR ROUTE

List those substances to be considered for scoring: Source:2

Polychlorinated biphenyls (PCBs)
Lead
Vinyl chloride
Benzene

Explain basis for choice of substance(s) to be used in scoring.

Concentrations of all of the above substances are either above their respective MTCA Method A cleanup levels, or showed significant detections, in surface soils.

List those management units to be considered for scoring: Source:2.3

Surface soil.

Explain basis for choice of unit to be used in scoring. Source:3

Surface soils documented concentrations of all of the above listed substances either above their respective MTCA Method A cleanup levels, or at significant concentrations.

WORKSHEET 2
ROUTE DOCUMENTATION

3. GROUND WATER ROUTE

List those substances to be considered for scoring: Source:2

Polychlorinated biphenyls (PCBs)
Lead
Vinyl chloride
Benzene

Explain basis for choice of substance(s) to be used in scoring.

Concentrations of all of the above substances are either above their respective MTCA Method A cleanup levels, or showed significant detections, in surface soils.

List those management units to be considered for scoring: Source:2,3

Analytically confirmed groundwater contamination.

Explain basis for choice of unit to be used in scoring.

Surface soils documented concentrations of all of the above listed substances either above their respective MTCA Method A cleanup levels, or at significant concentrations.

WORKSHEET 3
SURFACE WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Standard (ug/l)	Val.	Acute Toxicity (mg/kg-bw)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcino-genicity WOE	PF*	Val.
1.PCBs	0.5	10	1315	3	ND	-	B2	7.7	6
2.Lead	5.0	8	ND	-	ND	-	B2	ND	-
3.Benzene	5.0	8	3306	3	ND	-	A	0.029	5
4.Vinyl Chloride	2.0	8	500	5	ND	-	A	2.30	7

*Potency Factor

Source:1
Highest Value:10
(Max.=10)

+2 Bonus Points? yes
Final Toxicity Value:12
(Max.=12)

1.2 Environmental Toxicity

(x) Freshwater
( ) Marine

Substance	Acute Water Quality Criteria (ug/l)	Value
1.PCBs	2	8
2.Lead	82	6
3.Benzene	5300	2
4.Vinyl chloride	ND	-

Non-human Mammalian Acute Toxicity (mg/kg) Value

Source: 1 **Value:8**
(Max.=10)

1.3 Substance Quantity: unknown Source: 2 **Value:1**
(Max.=10)
Explain basis:

2.0 MIGRATION POTENTIAL

2.1 Containment: maintained run-on-runoff controls Source: 2 **Value:2**
(Max.=10)
Explain basis: contamination at surface

2.2 Surface Soil Permeability: sand/silt/loam Source: 2 **Value:3**
(Max.=7)

2.3 Total Annual Precipitation: 35.0 inches Source: 4 **Value:3**
(Max.=5)

2.4 Max. 2-Yr/24-hour Precipitation: 1-2 inches Source: 4 **Value:2**
(Max.=5)

2.5 Flood Plain: 100 yr. flood plain Source: 7 **Value:2**
(Max.=2)

2.6 Terrain Slope: site adjacent to water body Source: 3 **Value:5**
(Max.=5)

WORKSHEET 3
SURFACE WATER ROUTE

3.0 TARGETS

3.1 Distance to Surface Water: 0 ft. Source: 3 **Value:10** (Max.=10)

3.2 Population Served within 2 miles (See WARM Scoring Manual Regarding Direction): pop.= = 0 Source: 5 **Value:0** (Max.=75)

3.3 Area Irrigated within 2 miles 0.75 no. acres=0
(Refer to note in 3.2.): 0.75 =0.75( )= Source: 6 **Value:0** (Max.=30)

3.4 Distance to Nearest Fishery Resource: 0 ft. Source: 7 **Value:12** (Max.=12)

3.5 Distance to, and Name(s) of, Nearest Sensitive Environment(s) 0 ft. Source: 7 **Value:12** (Max.=12)
Duwamish Waterway

4.0 RELEASE

Explain basis for scoring a release to surface water: no confirmed release Source: 2 **Value:0** (Max.=5)

WORKSHEET 4
AIR ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Introduction (WARM Scoring Manual) - Please review before scoring

1.2 Human Toxicity

Substance	Air Standard (ug/m^3)	Val.	Acute Toxicity (mg/m^3)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcino-genicity WOE	PF*	Val.
1.PCBs	ND	-	ND	-	ND	-	B2	ND	-
2.Lead	0.05	10	ND	-	ND	-	B2	ND	-
3.Vinyl chloride	0.023	10	460123	1	ND	-	A	ND	-
4.Benzene	0.12	10	31947	3	ND	-	A	0.029	5

*Potency Factor

Source:1
Highest Value:10
(Max.=10)

+2 Bonus Points? Y
Final Toxicity Value:12
(Max.=12)

1.3 Mobility (Use numbers to refer to above listed substances)

1.3.1 Gaseous Mobility
Vapor Pressure(s) (mmHg): 3=4 4=4
Source:3
Value:4
(Max.=4)

1.3.2 Particulate Mobility
Soil type: sandy loam
Erodibility: 86
Climatic Factor: 1-10
Source:3
Value:1
(Max.=4)

1.4 Highest Human Health Toxicity/Mobility Matrix Value (from Table A-7) equals **Final Matrix Value:24**
(Max.=24)

1.5 Environmental Toxicity/Mobility
Source:1

Substance	Non-human Mammalian Acute Inhal. Toxicity (mg/m^3)	Value	Mobility (mmHg)	Value	(Table A-7) Matrix Value
1.PCBs	ND	-			
2.Lead	ND	-			
3.Benzene	31947 (rat)	3	9.5E+01	4	6
4.Vinyl chloride	460123 (rat)	1	2.7E+03	4	2

Highest Environmental Toxicity/Mobility Matrix Value (From Table A-7) equals **Final Matrix Value:6**
(Max.=24)

WORKSHEET 4
AIR ROUTE

1.6 Substance Quantity: unknown Source: 2 **Value:1**
(Max.=10)
Explain basis:

2.0 MIGRATION POTENTIAL

2.1 Containment: spill/discharge to ground Source: 3 **Value:5**
(Max.=10)
with cover < 2 feet thick

3.0 TARGETS

3.1 Nearest Population: 100 ft. Source: 3 **Value:10**
(Max.=10)

3.2 Distance to, and Name(s) of, Nearest Sensitive
Environment(s) 825 ft. Source: 7 **Value:10**
(Max.=7)
Wetlands park

3.3 Population within 0.5 miles: pop.=SQ root of 1213=35 Source: 8 **Value:35**
(Max.=75)

4.0 RELEASE

Explain basis for scoring a release to air: Source: 2 **Value:0**
(Max.=5)
No confirmed release

WORKSHEET 5
GROUND WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Standard (ug/l)	Val.	Acute Toxicity (mg/kg-bw)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcino-genicity WOE	PF*	Val.
1.PCBs	0.5	10	1315	3	ND	-	B2	7.7	6
2.Lead	5.0	8	ND	-	ND	-	B2	ND	-
3.Benzene	5.0	8	3306	3	ND	-	A	0.029	5
4.Vinyl Chloride	2.0	8	500	5	ND	-	A	2.30	7

*Potency Factor

Source:1
Highest Value:10
(Max.=10)

+2 Bonus Points? Y
Final Toxicity Value:12
(Max.=12)

1.2 Mobility (Use numbers to refer to above listed substances)
Cations/Anions: 1= ; 2= 2 ; 3= ; 4= Source: 1 **Value:3**
(Max.=3)

OR
Solubility(mg/l): 1=0 ; 2= ; 3=3; 4=3

1.3 Substance Quantity: unknown Source: 2 **Value:1**
(Max.=10)
Explain basis:

2.0 MIGRATION POTENTIAL

2.1 Containment: no liner=3/cover=0/no leachate collection=2 Source: 2 **Value:5**
Explain basis: total=5/Contaminated area has been capped/scored as a landfill
(Max.=10)

2.2 Net Precipitation: 24.4-5.2=19.2 inches Source: 4 **Value:2**
(Max.=5)

2.3 Subsurface Hydraulic Conductivity: silty sand Source: 2 **Value:3**
(Max.=4)

2.4 Vertical Depth to Ground Water: 0-25 ft./obs. rel Source: 2 **Value:8**
(Max.=8)

3.0 TARGETS

3.1 Ground Water Usage: not usable Source: 5 **Value:1**
(Max.=10)

3.2 Distance to Nearest Drinking Water Well: >10,000 ft Source: 2 **Value:0**
(Max.=5)

3.3 Population Served within 2 Miles: pop.= 0 Source: 2 **Value:0**
(Max.=100)

WORKSHEET 5
GROUND WATER ROUTE

3.4 Area Irrigated by (Groundwater) Wells
within 2 miles: 0.75 no.acres=0 Source: 6 **Value:0**
0.75 =0.75 ( )= (Max.=100)

4.0 RELEASE
Explain basis for scoring a release to ground water: analytically confirmed release Source: 2 **Value:5** (Max.=5)

SOURCES USED IN SCORING

1. Washington ranking Method Toxicological Data-Base
2. Northwest Cooperage Site Reports: Groundwater & Soil Quality Assessment Phase III, Hart Crowser, 12/87; Northwest Cooperage Co. Groundwater Monitoring Report 10/91.
3. Site Hazard Assessment, PHSKC, 06/05
4. Nation Weather Service Data
5. Washington State Dept. of Health Public Water Supply Listing
6. Washington State Water Use Data
7. Sensitive Areas Coverage, King Co. Geographic Information System Data
8. Census Data, 2000 census